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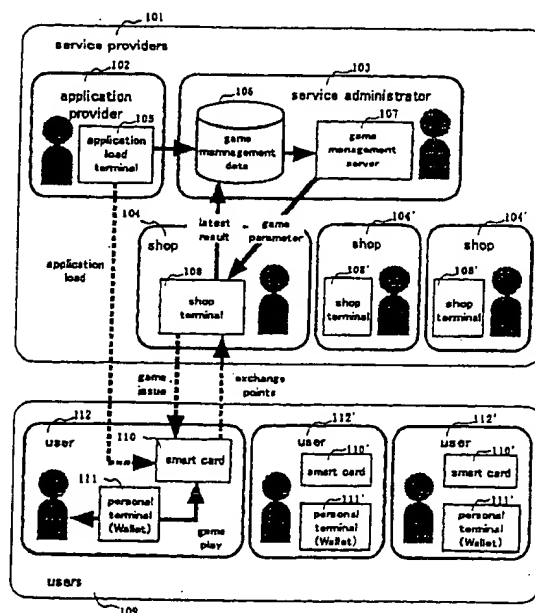
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(54) IC card, terminal device and service management server

(57) Disclosed is a system for loading, through a shop terminal, a game application into an IC card which disables playing of the game in a plurality of times in the same pattern by invalidating the game pattern when the play is completed and program log data is stored in the IC card. The log data is collected by a management server for each connection of the IC card and the shop terminal so as to administrate the collected data to enable dynamic management of game parameters, thereby the game application may be safely introduced to the IC card system and a user can raise intention to use the card.

Fig. 1



EP 0 982 056 A2

a memory for accumulating a plurality of application programs and data; and

a processor for executing the application programs,
wherein the memory accumulates, as one of the application programs, a game application having the following routines:

- 5 storing a game pattern in the memory;
- displaying a game corresponding to the game pattern on a display of the terminal connected via the input/output interface; and
- 10 receiving user input data through the terminal via the input/output interface and then judging the result of the game by referring to the user input with the game pattern stored in the card.
- 15 2. The IC card of claim 1, wherein the game application has a routine of disabling the use of the game pattern after a user has played the corresponding game.
3. The IC card of claim 1, wherein the game pattern can be input from the terminal connected to the input/output interface.
- 20 4. The IC card of claim 1, wherein the data input concerned about the game from the outside via the input/output interface is ciphered and the input data is deciphered.
5. The IC card of claim 1, wherein the game application has a routine of generating the game pattern depending on the data having a defined number of playing times of the game input through the input/output interface.
- 25 6. The IC card of claim 5, wherein game parameter data defining winning probabilities of the game or a game point are stored in the memory and the game pattern is generated based on the game parameter data.
7. An IC card comprising:
 - 30 an input/output interface for exchanging data with the outside;
 - a memory for accumulating a plurality of application programs and data; and
 - a processor for executing the application programs;
wherein the memory accumulates, as one of the application programs, a game application having the following routines:
 - 35 storing in the memory data determining the number of playing times of a game input via the input/output interface;
 - displaying the game corresponding to the game application on a display of a terminal connected via the input/output interface when a number of playing times of the game are still left;
 - 40 generating different values depending on user input timing to the terminal for the displayed game and then determining the result of the game played depending on the values; and
 - specifying a process of reducing the number of playing times of the game after the game has been played.
 - 45
8. The IC card of claim 7, wherein the values different depending on input timing are random values generated in the IC card, or clock values operating in the IC card.
- 50 9. The IC card of claim 1, wherein the pattern data comprises data forming a set including a question to a user requiring answer and the answer to the question.
10. The IC card of claim 3, wherein the application programs include a routine of holding, in the memory, log data regarding the game played by the IC card, and the storing of the game pattern is controlled by referring to the log data in a routine of storing the game pattern in the memory.
- 55 11. The IC card of claim 5, wherein the game application has a routine of holding the log data regarding the game